

LEE (E.)

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CHOLERA.

Read before a Mass Meeting of Physicians,
March 18, 1893.

Reprinted from the *Chicago Clinical Review*,
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THE TREATMENT OF
TYPHOID FEVER.

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BY

✓ ELMER LEE, A. M., M. D., PH.B.,

~~CHICAGO, ILL.~~



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PREVENTION AND TREATMENT OF CHOLERA.

By ELMER LEE, A. M., M. D., CHICAGO, ILL.

A mass meeting of physicians, for the consideration of the above subject, was held at the Great Northern Hotel, Saturday evening, March 18, 1893, under the auspices of the Practitioners' Club of Chicago. There was a large attendance.

Dr. C. D. Wescott called the meeting to order at 8:20 P. M., and Dr. DeLaskie Miller was chosen Chairman of the meeting in the absence of Dr. N. S. Davis.

Dr. Miller, in his opening remarks, said: This is an unexpected honor, to be called upon to fill the place of the gentleman who is unavoidably absent; but as the Chairman of this meeting is to be little more than a figurehead, I will accept the honor with thanks. This is an important meeting, and I trust that the attention and interest of it will be given to the gentlemen who will occupy the time. Without further remarks we will proceed to the business before the meeting.

After remarks made by several medical gentlemen on the different phases of the subject of cholera,

Dr Elmer Lee, of Chicago, read the following paper:

The leading proposition suggested and tried in the treatment of Asiatic cholera, during the epidemic of 1892 in Europe, consisted of the following general plans. Early in the epidemic, lactic acid treatment was proposed on the ground that it would neutralize the alkaline accumulations in the bowels, and so stop the multiplication of the bacilli.

An Englishman, residing in Paris, considered cholera a hyperæmia of the spinal cord. His proposition was ice poultices continuously applied to the region of the whole spinal column. A small pamphlet was published by the doctor in defense of his conclusions, and to present testimonials in favor of his congestion theory. As this system of management was not seriously considered by cholera physicians, its efficacy cannot be stated.

The use of large doses of the Russian remedy, salol, the invention of Prof. Nenski, of St. Petersburg, grew in favor as a new remedy during the epidemic. The average result of cases so treated in St. Petersburg, and by my American colleague, Blackstein, in Baku, and in other provinces in Southern Russia, could not be said to be satisfactory. Finally, at the close of the epidemic, its influences had come to be considered less and less valuable—this, however, can be said—it was in all and all more largely used than any other new remedy. Still it would not be safe to place too much trust in it.

Calomel was everywhere a remedy even more used than salol. Formerly this drug was used in very large doses, but last year it was the very small doses which found favor. Especially was this true in the treatment of cholera in Hamburg.

Of the surgical measures, the infusion of solutions of salt were most practiced. The solution consisted of distilled water in which was dissolved one-half of one per

cent. of common salt. This liquid was warmed to the temperature of the blood, and either introduced directly into some large vein, or injected, with a long needle and a large barrel syringe, beneath the integument of the abdomen. The amount of salt solution used in either case would be from one pint to one quart each time. In one case treated at Hamburg as much as thirteen quarts of salt-water were used from first to last. The patient recovered. The subcutaneous injections were frequently followed by cysts and sometimes abscesses appeared. Intravenous injections sometimes proved a godsend, but more frequently disappointment could be said to be the result. These injections were only used in the third period of the disease, or the stage of collapse, algidity or asphyxiation, at which period, it would be rather unreasonable to expect recovery by virtue of any treatment.

The Italian treatment, as it was called in Russia, was much used, and with frequent gratifying success. This practice was introduced by Prof. Cantani. It consists of a clyster composed of the following constituents:

Boiled water or infusion of chamomile (warm), 2 litres.

Tannin, 4 to 10 grams.

Laudanum, 5 to 10 drops.

Powdered gum-arabic, 50 grams.

This or some part of the solution is occasionally passed into the rectum, to be retained if possible by the patient. In the experience of those who have followed this method of treatment, almost every case taken at the beginning of the disease has lived. It is certainly more reasonable in principle than simple drug management.

Of the experiments of Ferran, of Spain, and Haffkine, of the Pasteur Institute, much has been said, but what has been said has failed to bring conviction to my mind. As

cholera itself cannot be said to protect one who has had the disease and recovered, against a second attack, then that which is less than cholera in influence cannot be expected to do it. The seat of the disease is located in the intestines, and, so long as the infectious juices are there, the lymph vessels, in the processes of physiological function, will continue to infect the blood. Can we hope to thwart physiological action of absorbents by hypodermatic injection of cholera culture, made at some time, it may be years, previous to the date of the passing epidemic? The answer by my judgment, is that such expectations are flimsy. The caprice of Stanhope at the Hamburg Hospital cannot seriously pass for an argument in favor of anti-choleraic vaccination. His interesting but wildly exaggerated stories were the product of a newspaper's love for sensation, and profit of increased sales of newspapers.

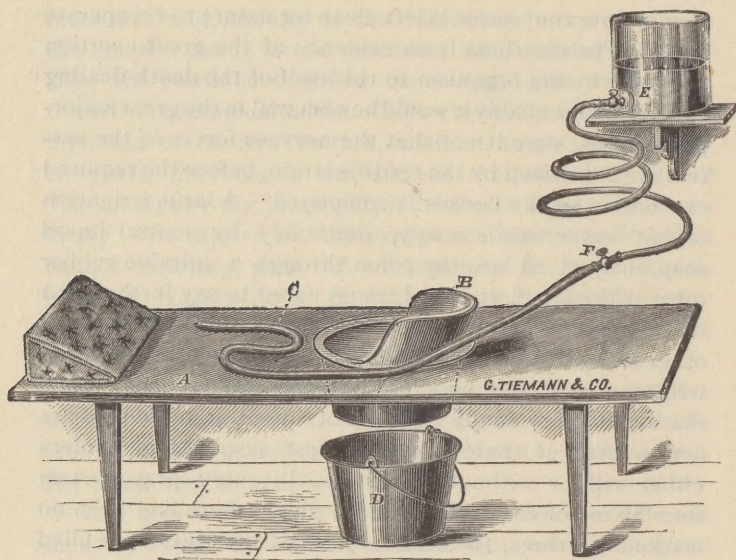
My own personal thoughts concerning cholera and the method of treatment, as practiced by me both in Russia and at Hamburg, during the epidemic of 1892, will occupy the remaining time allotted me.

It is now well known that cholera is a disease of the alimentary canal. Its inciting cause is believed to be a germ taken into that canal through the medium of food and drink. There its presence is protested against by the absorbent vessels, which eliminate from the food the nutriment for the body. The first symptom produced by foreign invasion in the intestines is a diarrhœa, which may precede vomiting from one to three or even four days. If this be true, the bowels must be the seat of disorder, and the most direct method of reaching them by medication must be the best. If the stomach could be emptied of the foul material before the poison has passed further, there might be speedy relief and, indeed, no real cholera. After it has passed into the intestines, medicine administered through the stomach may be

slow in reaching the seat of the disease, and even then can only mingle with the poison, holding out the hope that the one will be neutralized by the other. This hope, in truth, is seldom realized. But if the poison can be removed from below, the course is left clear for nature to recuperate itself. The diarrhœa is an evidence of the great exertion put forth by the organism to rid itself of the death-dealing agency, and probably it would be effectual in the great majority of cases, were it not that the nervous forces of the system are exhausted by the terrible strain, before the required evacuation of the bowels is completed. A large irrigation of hot water, made soapy, preferably by neutral liquid soap, introduced into the colon through a suitable rubber tube, is the simplest, and I am prepared to say further that it is a more satisfactory way of treating cholera than any other with which I am acquainted. The time to begin the irrigation is at the very earliest possible moment. Save the blood every single moment of infection by immediate action even if there is the faintest suspicion of cholera either with or without diarrhœa. In every post-mortem seen by me of cases of death in which there had been no marked diarrhœa, the colon and small intestines were filled with accumulations of choleraic matter, which swarmed with comma bacilli. The rule from which there need never be deviation is to treat the patient by irrigation of the bowels and rinsing of the stomach without waiting for confirmation of the diagnosis either with the microscope or by the culture test. The best part of the practice is always to save the patient, even at the expense of fine statistics. The accompanying illustration explains the manner of using irrigation of the intestines. Such apparatus is suitable for places of public treatment of the sick. In private practice the syringe would take the place of the irrigating apparatus.

The irrigation is accomplished by means of a soft rubber tube F, one meter in length and of suitable size to be in-

troduced into the rectum, in front of the promontory of the sacrum, into and up through the sigmoid flexure and into the descending colon. This tube which is connected with



(Dr. Lee's apparatus for irrigating the intestines for the cure of cholera and other bowel diseases. Used first in St. Petersburg, during the cholera epidemic of 1892.)

a glass reservoir E, should not be too small nor too large, in order to facilitate its introduction through the folds of the sigmoid portion of the lower bowel. In fact, the greatest difficulty to be encountered, is to successfully pass the tube in front of the promontory of the sacrum, and enter into the sigmoid flexure. The tube should be of proper firmness to prevent it from bending or buckling upon itself when the end, (which in all cases should be rounded), comes in contact with the obstructing folds of the intestine.

For internal treatment my experience taught me that the *medicinal peroxide of hydrogen, of Marchand*, given in cupful doses of the strength of 4 per cent., or even much stronger, was a better antiseptic than any other drug heretofore known in the treatment of cholera. Then the treatment would be, first, immediate irrigations with hot water and soap, using from one to three gallons at a time twice a day for the first and second days. Once a day afterwards, if required, which is seldom the case. At the same time cleanse the stomach with *medicinal peroxide of hydrogen* and hot water used freely—by urging the patient to drink. The feeding and nursing are the same as would be required by a patient suffering from septicæmia or other prostrating disease. My belief is based upon personal experience, and the following surgical measures and medical treatment, viz.: Irrigation of the bowels, *always first* with hot water made soapy with neutral liquid soap or a good castile soap; second, cleansing and rinsing the stomach with hot water and *medicinal peroxide of hydrogen, of Marchand*, continuing till it is well washed; third, food and nursing; fourth, *medicinal peroxide of hydrogen of 4 per cent. strength* given in cupful doses at intervals of two hours during the sickness till convalescence; fifth, meet the requirements as they come up, as would be done in any other grave disease, using whatever personal experience has taught us to believe is good. Cleanse the bowels, wash the stomach, feed the sick, keep them warm if cold, and reduce excessive heat by the cool bath rather than reliance upon drugs, using anything in an emergency that is the easiest and the most accessible to procure. The cholera patient may be convalescent inside of the first few days, or if not convalescent and not dead, the case goes into the typhoid state, after which convalescence may be deferred for several weeks, or death may be the conclusion. The tem-

perature prior to the fifth day is generally subnormal or a little above, but on the fifth day marked exacerbation and elevation of temperature indicates the typhoid condition.

THE CHAIRMAN: It is a most fortunate circumstance that we are alive to-day. We must all of us feel confident that we have passed from the old to the new dispensation, which cannot but strengthen our faith like the anchor cast within the vale. We know what cholera is; we know that we can limit its spread in our city. This is a great confidence, and it will do much for the comfort of this community. This idea should be spread throughout the length and breadth of this great city.

103 State Street.

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THE TREATMENT OF TYPHOID FEVER.

Read before the *Chicago Medical Society*, March 5, 1894.

By ELMER LEE, A. M., M. D., CHICAGO.

Recognition of the value of cleanliness represents the most practical discovery in treatment during the present generation, and, at the same time it constitutes one of the really great discoveries in the history of Medicine. The application of the principles of cleanliness more nearly meets the requirements of a real advance in curative medicine, than all the other propositions known to the profession for the cure of disease.

The symptoms of Typhoid Fever are too well known by all to need particular mention; the question of burning interest is what to do to be saved. The disease is produced by drinking contaminated water, and its seat of development is situated in the intestinal canal. There is a poison there which, if it could be removed before it had become absorbed into the blood, life, and even health would be spared. Allowed to remain, the poison is drawn

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into the circulation, and very soon the whole body feels the depressing effect. Even at this time, if those remaining poisonous juices and germs which are contained in the bowels were either neutralized by suitable remedies, or washed entirely away by a stream of flowing water, the disease would be checked, the patient spared, and health restored.

Without waiting for development of the symptoms of Typhoid Fever the very first proposition is to make the patient surgically clean, which means the free and abundant use of water internally first, and externally afterwards. The bowels are drenched and cleansed by a copious douche of hot soapy water, made to pass into and out of the lower bowel, until the contents are cleared away and the returning water comes back as clear as before it entered. The relief to the sick person by following such ablution is a delight to the physician and of greatest comfort to the patient. It seems so reasonable, they will say, and in practice it is just as good as they say. Fears were formerly entertained by me, as they are to-day by some of my contemporaries, that something would be bursted by running a large volume of water into the bowels of persons sick with Typhoid Fever. No harm has ever been done, and neither is it likely to be so caused. Several hundred cases have been so deluged by me with large quantities of water, and in no instance has the result failed to be beneficial. The fear of doing harm may be entirely and forever dismissed. That which is not well understood by any one, always seems inconvenient, or troublesome to perform. But a little practice makes easy the methods which a little while before appeared unpleasant, even hard.

The temperature of the water used for cleansing and washing the bowels, should always depend upon the temperature of the body. If there is high fever the water is

more agreeable and useful to the patient when it is cool, viz.: 75 degrees F.; but if the patient is chilly, or has a low temperature, the water should be at blood heat, nearly 100 degrees F. During the first week of illness, the irrigation of the bowels should take place in the morning and again in the evening of each day. After this, one douche of water should be given each day until convalescence. The co-operation of the patient is readily accorded. The treatment takes hold of his reason, which lends both hope and help to the management of the case.

Bathing the body is performed at regular intervals and by such a system as may be convenient and suitable to the individual. The bathtub may be used when the patient is strong enough to be assisted to it, where otherwise, sponging with cold water is very refreshing, and useful to maintain strength and lower the heat of the body.

The most effective and most lasting influence is secured by wrapping the patient in a wet sheet. Two blankets are spread on the bed, covered with a sheet wet with cold water. The patient is wrapped in the sheet, and then folded quickly and completely in the blankets. The time during which the sick one may remain in the wet pack is from one-half to one hour, or even longer if he is comfortable. Bathing opens the pores of the skin, and through them the system discharges a part of the hurtful waste of the body. This bathing should be continued, several times daily during the disease and during convalescence.

The internal treatment is uncomplicated, safe and useful. The basis of it is cold water, and always plenty of it to drink. Water cools the body and assists to cleanse it of the poison which makes it sick. The elimination is carried on through the intestinal canal, through the kidneys, through the lungs, and by the skin. Let the sick have water, it can do no harm in any case; water only does

good. What cruelty it was in fever cases, to keep water from them, and what suffering it caused. A half tablespoonful of Hydrozone* is added to each glass of water. It is the best and most simple remedy that can be given that is likely to be of benefit in helping to cure Typhoid Fever. Continued for a few days, it is then laid aside for a few days and Glycozone substituted in its place, both as a relief to the patient and for the beneficial effect of the remedy itself. And so on in this way the two remedies are alternated, which is found by me to be the best arrangement for administering these valuable antiseptics. The preparation, Glycozone, is chemically pure, redistilled Glycerine in which Ozone, or concentrated Oxygen, has been incorporated, and can be taken with as much freedom and safety as pure Glycerine. The Glycozone may be taken in doses of half a tablespoonful to a glass of water as often as water is taken during the day. When it is desired to allay nervousness and induce sleep at night, sulphate of Codeine is used, in doses of from one-half to one grain, by the mouth, or one-quarter to one-half grain by the hypodermic method. This remedy tranquilizes the nervous system and induces sleep, and should be administered at night.

The Typhoid Fever patient receives as food, whatever is simple, at regular intervals of four hours. Milk, simple, natural milk, is nourishment of the highest importance. One egg every day, or every other day, is alternated with a small teacup of fresh pressed juice from broiled steak or mutton. The egg is pleasant to take and more nutritious, when whipped till it is light and then stirred with a small glass of milk. For a simple and nourishing artificial food, malted milk is always good.

* Hydrozone now takes the place of Peroxide of Hydrogen, the strength is double, the dose one half. See addenda.

The juices of fruits are delicious to the Typhoid Fever patient, and are not to be dismissed on the supposition that they are injurious. It is always interesting to observe that, when the fever is broken, and convalescence is beginning, that water in copious draughts is no longer easy for the patient to take. When the usual glass of water is handed back half drained, it is an encouraging sign of beginning restoration. For wholesome drinking, fresh lake water which has passed through a Pasteur porcelain filter is entirely reliable.

The simplicity of the foregoing plan meets every requirement, and saves nearly every case, unless there is some complication. It is my belief that doing more than this is doing less, and less than this which is so simple, is not enough. The profession agrees that no kind of drug treatment is useful or curative in Typhoid Fever, indeed, one of these days, in my opinion, the statement will be considered applicable to other, if not all, cases of diseases of the bowels.

The plan as proposed by me and practiced during a period of five years, consists, in review, of the following systematic management in Typhoid Fever:

Water used internally as a douche for free irrigation of the bowels, either simple or made soapy with pure liquid soap. Water as a drink, and as a remedy taken copiously and frequently, especially during the stage of fever. Water is indispensable, and should be given as often as is desirable and agreeable to the circumstances of the case. Frequent application of cool water to the surface of the body during the entire illness.

Remedies: Hydrozone and Glycozone, for the antiseptic effect of the oxygen which is set free in the stomach and intestines. But to be of real value, these remedies are to be taken in considerable quantity largely diluted with

water, else, in my opinion, they are of little use. The capacity of the bowels is so great that a little of anything cannot spread over enough of this enormous area to effect it beneficially. Cleanliness is the principle governing the use of Hydrozone and Glycozone.

For a remedy that soothes and brings on sleep at night sulphate of Codeine is better than chloral, besides it is the safest and best.

For food, anything that is simple and in liquid form; milk is always the best; milk and whipped eggs; pressed juice from broiled meat. The juice from fresh, ripe fruit. The nutrition taken should be at regular intervals (four hours), that sufficient time may be allowed for digestion.

Stimulants and drugs are injurious without exception, and better results are secured without their use. Typhoid Fever, generally transmitted through the drinking water, is a preventable disease. Typhoid Fever affects all classes, but if food and water were always pure, no class or age need contract Typhoid Fever. Cleanliness everywhere and always is the means at hand which makes it possible to escape Typhoid Fever and other diseases of the bowels. Internal cleanliness as well as external is a reasonable proposition of hope for the cure of the unhappy multitude of sick and discouraged humanity.

193 State Street.

"The use of Peroxide of Hydrogen as an internal remedy has been widely opposed by some of my patients, owing to the disagreeable metallic taste. This objection was partly obviated by the use of large dilution with water, but still not to my entire satisfaction.

Since reading the foregoing paper, a new antiseptic remedy called 'Hydrozone' has been received and examined already sufficiently, to promise relief from the objections against Peroxide of Hydrogen for internal use. Hydrozone has now been substituted by me instead of Peroxide of Hydrogen.

First, on account of its greater bactericide power, as it requires but half the quantity of the Hydrozone to obtain the same result, and secondly, the taste of this remedy is not disagreeable to the patient."

Chicago, May 1, 1894.

